

REMARKS

Entry of the above amendments and consideration of the following remarks are respectfully requested. Upon entry of the above amendments, this application will contain claims 1-4 and 63-105 pending and under consideration. Claims 1-4 and 63-88 were rejected under 35 U.S.C. §102(e) over Bianchi et al. (U.S. 6,033,438). For the reasons discussed below, it is believed that the claimed invention is patentable over the cited art and reconsideration leading to timely allowance of this application is requested.

Rejections under 35 U.S.C. 102

Claims 1-4 and 63-88 were rejected under 35 U.S.C. §102(e) over Bianchi et al. Applicants have amended claim 1 to recite that the first side wall has a "first generally planar surface, and second generally planar surface and a concave surface therebetween." Support for this amendment can be found in the application in Figs. 1, 3, 4, 5, 11, 12, 22, 46, 47, and 48, among other places.

It is believed that the implant as presently claimed is not anticipated or made obvious by Bianchi et al. The implants disclosed in Bianchi do not have a first sidewall disposed between the upper and lower bone engaging surfaces and which also has a concave surface positioned between two generally planar surfaces. Consequently, withdrawal of the rejections over claim 1 and claims 2-4, which depend from claim 1 is requested.

Claim 63 has been amendment to recite that that the elongate bone portion defining a longitudinal axis has a "generally rectangular cross-section transverse to the longitudinal axis." Support for this amendment can be found in the application in Figs. 4, 5, 15, 16, 22, and 44b, among other places.

Bianchi et al does not specifically disclose a spinal fusion implant that has a generally rectangular cross-section that lies transverse to the longitudinal axis, *i.e.*, when viewed from a direction parallel to the longitudinal axis. The Bianchi implants are illustrated as dowels. However, it is understood that the claims in Bianchi do not contain such limitations and should not be interpreted to contain that limitation. It is maintained that Bianchi et al. does not specifically disclose or make obvious the invention as presently claimed including a spinal fusion implant the comprising, *inter alia*, "an elongate bone portion defining a longitudinal axis and having a generally

rectangular cross-section transverse to the longitudinal axis". Applicants request withdrawal of the rejections of claim 63 and claims 64-81, which depend from claim 63.

Applicants have amended claims 74 and 76 by replacing the term "first portion" with the term --concave surface-- to provide correct antecedent basis for the claims.

Similarly, claim 79 has been amended by replacing the phrase "recess defines" with the phrase --first end comprises-- to provide correct antecedent basis for the claim.

Claim 82 has been amended to recite that the second, opposite sidewall is "generally parallel to the concave surface" of the first wall. It is believed that Bianchi et al. does not disclose or make obvious an implant having a second wall that is generally parallel to the concave surface in the first wall. It is believed that claim 82 is patentably distinct from Bianchi et al. Consequently, withdrawal of the rejections over claim 82 and claim 83, which depends from 82 is requested.

Claim 84 has been amended similar to claim 1 and now recites that the bone portion defines a "longitudinal axis having a generally rectangular cross-section transverse to the longitudinal axis". Support of this amendment has been noted above for claim 63. Also as noted above, it is believed that Bianchi does not disclose an implant as presently claimed. Consequently, withdrawal of the rejections over claim 84 and claims 85-88, which depend from claim 84 is requested.

New claims 89- 105 have been added. Support for the new claims can be found in Figs. 1-6 11-16, 45, 46, 47, and 48, among other places. It is believed that these amendments do not add any new matter.

Conclusion

In view of the foregoing remarks, Applicants respectfully submit that the cited reference does not disclose or make obvious the claimed invention. Accordingly, reconsideration leading to withdrawal of all the rejections under 35 U.S.C. §102(e) and passage of this application containing claims 1-4 and 63-105 are respectfully requested. Additionally, the Examiner is invited to

telephone the undersigned attorney if there are any questions about this submission or other matters, which may be addressed in that fashion.

Respectfully submitted,

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**VERSION WITH MARKINGS TO
SHOW CHANGES**

1. (Amended) A spinal fusion implant, comprising:

a bone portion having an upper bone engaging surface, a lower bone engaging surface, a first sidewall and an opposite second sidewall extending between said upper and lower bone engaging surfaces, said first sidewall having a first generally planar surface, a second generally planar surface, and a concave surface therebetween portion defined by a concave surface.

63. (Amended) A spinal fusion implant, comprising:

~~an elongate bone portion having a generally rectangular cross-section and defining a longitudinal axis and having a generally rectangular cross-section transverse to the longitudinal axis,~~ said bone portion comprising:

a first bone engaging surface;

a second bone engaging surface; and

a first sidewall extending between said first and second bone engaging surfaces, wherein the first sidewall comprises a concave surface.

74. (Amended) The implant of claim 63 wherein the first sidewall comprises a first substantially planar surface adjacent the concave surface first portion.

78. (Amended) The implant of claim 76 wherein the first endwall comprises a recess extending to the concave surface first portion.

79. (Amended) The implant of claim 76 wherein the first end comprises recess defines a bore extending substantially parallel to the longitudinal axis.

82. (Amended) A spinal fusion implant, comprising:

an elongate bone portion defining a longitudinal axis and comprising:
a first sidewall comprising a concave surface;

a second, opposite sidewall comprising a convex surface generally parallel to the concave surface;

a first bone engaging surface positioned between the first and second sidewalls; and

a second bone engaging surface opposite the first bone engaging surface, wherein at least one of the first or second bone engaging surfaces comprises ridges or teeth.

84. (Amended) A system for spinal fusion of adjacent vertebrae, said system comprising a pair of spinal implants, said spinal implants comprising an elongate bone portion defining a longitudinal axis and having a generally rectangular cross-section transverse to the longitudinal axis; a first bone engaging surface; a second, opposite bone engaging surface; and a first sidewall extending between said first and second bone engaging surfaces, said first sidewall comprising a concave portion, said pair of implants are positioned in an intervertebral space whereby the concave portions define a chamber.